

Final Visual Presentation
for the degree of
Master of Visual Arts

Industrial Design

Gregory H. Kasa

1978



THE UNIVERSITY OF ALBERTA

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THE UNIVERSITY OF ALBERTA

FINAL VISUAL PRESENTATION

by

Greg Kasa

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF

MASTER OF VISUAL ARTS

IN

INDUSTRIAL DESIGN

DEPARTMENT OF ART AND DESIGN

EDMONTON, ALBERTA

FALL, 1978

THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES AND RESEARCH


The undersigned certify that they have read, and
recommend to the Faculty of Graduate Studies and Research, for
acceptance, a thesis entitled:

Final Visual Presentation

submitted by Gregory H. Kasa

in partial fulfilment of the requirements for the degree of
Master of Visual Arts.

Date: AUG 10, 1978



THE UNIVERSITY OF ALBERTA
BUREAU OF CHAIRMAN STUDIES AND RESEARCH

The undersigned certifies that they have read, and
assent to the findings of the Board of Studies and Research, for

the purpose, a thesis entitled:

Final Visual Presentation

Submitted by Gregory A. Egan

In attested testimony of the requirements for the degree of

Master of Visual Arts.



.....
Date:

SIGNAGE

BRIEF

The Exterior Signage Project for the University of Alberta involved building identification and an information Kiosk.

Total budget for the project is in excess of \$30,000.⁰⁰.
Designer's fees (the author) was \$2470.⁰⁰

Coordinator (Academic Staff) Walter Junkind
Dept. Art & Design
University of Alberta

Coordinator, Campus Development Office
Blake Pratt
Landscape Architect
University of Alberta

The Exterior Signage Project was undertaken by the Campus Development Office. Its main objective was to provide adequate directional information to pedestrians, particularly new students on campus, students attending night classes and of course visitors.

As the designer, my responsibilities included all phases of design from the concept through to production model. Many meetings were held between Blake Pratt, Walter Junkind and myself and meetings with the Campus Development Committee were also necessary to assure a satisfactory result.

The project was initiated in the Summer of 1974.
Design 1974 to January 1976.
Production November 1976 to March 1977.
Final Installation late 1977.

AGRICULTURAL TRACTOR

BRIEF

This project was taken to the prototype stage which was demonstrated on presentation day. (Aug.10/78)

The prototype is the result of a five year study including: a review of related research papers and reference material, models, mock-ups, and finally the prototype.

The primary objective of the project is to improve the ergonomics of the operator work space and general functional utility of the agricultural tractor.

Design considerations include: operator orientation to tractor and related equipment, placement of controls, noise, visibility, tractor versatility, maintenance, feasibility of manufacture, economics and aesthetics.

FEATURES OF PROTOTYPE

- | | |
|----------------|--|
| Rotating Cabin | - allows operator to choose an infinite range of positions (maximum 50 degrees right of center and 180 degrees left) |
| | - tractor may be used in push or pull |
| Suspension | - rotating cabin fixed in vertical axis with suspension limited to vertical direction |
| Noise | - cabin isolated from power train |
| | - controls by flexible linkages |

(over)

Maintenance

- cabin suspended in roll frame which may be tilted backwards off power train (90 degrees)
- time required for tilting about 15 min.

Tractor Versatility- tractor may be used in push or pull configuration

The rotating cabin enhances the man/machine interface by improving the operator's vantage point to draft equipment (through partial rotation) and allows some equipment to be rear mounted ie. loaders, swathers, etc. and used in push configuration (through 180 degree rotation) greatly increasing visibility.

Noise is reduced by maximizing cabin isolation and utilizing flexible linkages.

Overall capital investment in equipment could be potentially reduced for the farmer by the increased use of P.T.O. combines and swathers.

Maintenance costs may be reduced by the short time (15 min.) to remove simultaneously the cabin and controls leaving the power train virtually free of encumbrances.

SLIDES

UNIVERSITY SIGNAGE

1. INFORMATION KIOSK WITH MAP AND POSTER
(SHOWN ON COVER OF FOLIO OCTOBER 1975-SEE SAMPLE A)
2. MOCK-UP KIOSK (SUMMER 1975)
3. SIGN-POST-IDENTIFICATION ON THREE SIDES
4. SIGN-POST SHOWN WITH KIOSK

NOTMONDE

5. NEWS RELEASE- INFORMATION ABOUT NOTMONDE-SEE SAMPLE B
6. BROCHURE- HANDOUT AT HOME SHOW 1975- SEE SAMPLE C
7. GROUP OF ACTORS FROM DRAMA DEPARTMENT PREPARING FOR
A TRIAL RUN AT ART WORKSHOP I, U. OF A. CAMPUS
8. SETTING UP AT HOME SHOW
9. SUGAR BOWL SEA (INTERIOR)
10. MUSIC ROOM (INTERIOR) FEATURING MS. QUIZZEL
11. SILENT CAVE
12. NOTMONDE

AGRICULTURAL TRACTOR WITH ROTATING CABIN

EARLY CONCEPTS TO MOCK-UP OF CONTROL STATION

13. FIRST SKETCHES
14. "
15. CONTROL STATION
16. " ILLUSTRATION
17. CONTROL CHART- A SYSTEM TO ESTABLISH CONTROL
 PLACEMENT ON BASIS OF PRIORITY
18. "
19. CONTROL PLACEMENT

- 20. FINAL CONTROL LAYOUT YELLOW - HYDRAULICS
 BLUE - BRAKES
 GREEN LT. - GEARSHIFT
 RED - CLUTCH
 GREEN DK. - THROTTLE
 PURPLE - P.T.O.
 RED LGE. OVAL - STEERING
- 21. FULL SCALE MOCK-UP OF CONTROL STATION
- 22. EXAMPLE OF POOR CONTROL LAYOUT
- 23. "

STATE OF THE ART TO 1975

- 24. TRADITIONAL TWISTED POSITION EXPERIENCED BY VIRTUALLY ALL AGRICULTURAL TRACTOR OPERATORS
- 25. OPERATOR EXPERIENCES MUCH IMPROVED ERGONOMIC POSITION ON SELF-PROPELLED EQUIPMENT
- 26. AWKWARD POSITION A TRADITION (1950)
- 27. EVEN PLOUGHING WITH OXEN DIDN'T NECESSITATE TWISTING AROUND TO SEE IMPLEMENT
- 28. FARMER ATTEMPT TO IMPROVE VISIBILITY AND FUNCTION BY REAR MOUNTING LOADER (1970)
- 29. TRACTOR WITH REAR MOUNTED SNOW BLOWER
(NOTE : OPERATOR TWISTING)
- 30. GERMAN PUSH/PULL TRACTOR (1975)
- 31. REAR - MOUNTED LOADER (1975)
- 32. INDUSTRIAL LOADER - SEE OPERATPR ORIENTATION
- 33. P.T.O. SWATHER (1978)
- 34. SELF-PROPELLED COMBINE (1978)
(SEE SAMPLE D - PICTURES TAKEN DURING PRESENTATION
AUGUST 10, 1978)

EMPHASIS ON NOISE - SAFTEY - CONTROLS

- 35. MODERN SAFTEY CABIN WITH REDUCED NOISE AND IMPROVED CONTROL LAYOUT (J.I.CASE CO. 1978)
- 36. CONTROL LAYOUT (DEERE AND CO. 1978)
- 37. ROLL OVER ACCIDENT (1971) NON-PROTECTIVE CANOPY
- 38. ROLL OVER TESTS WITH PROTECTIVE CANOPY
- 39. "
- 40. DEERE CABIN (1978)
- 41. " NOISE REDUCTION TECHNIQUE
- 42. " ISOLATION MOUNTS

MODEL - DRAWINGS

- 43. MODEL ON IHC 1066 POWER TRAIN
(MODEL COMPLETED JANUARY 1976)
- 44. PLAN VIEW OF ROTATING CABIN
- 45. ELEVATION OF TILTING CABIN/ROLL FRAME
- 46. ELEVATION SHOWING REAR MOUNT LOADER

PROTOTYPE

- 47. POWER TRAIN FROM OPERATOR SEAT
- 48. ENGINE SHROUD
- 49. FIRST ATTEMPT - MECHANISM FOR ROTATING CABIN
- 50. ALL LIGHT METAL WORK WAS TIG WELDED
- 51. CARDBOARD WAS USED TO FINALIZE SHAPES
- 52. ROLL FRAME / CABIN
- 53. GEAR CHANGER
- 54. SUSPENSION
- 55. " CLOSE - UP
- 56. PROTOTYPE - NEAR COMPLETION (JULY 1978)

